

Appl. No. 10/756,629
Amdt. Dated November 3, 2005
Reply to Office action of October 13, 2005

APP 1563

Amendments to the Specification

Please replace paragraph 13 at page 5 with the following:

Once having the BTS resource constraints and the performance functions, an equitable resource allocation model is generated, wherein the model is formulated as a lexicographic minimax optimization problem with decision variables that represent the estimated non-uniform spatial offered loads for each bin. Specifically a ~~lexographic~~ lexicographic minimax objective function is defined in terms of lexicographic minimization of the vector of the performance functions sorted in a non-increasing order. This objective function is then coupled with the resource constraints to define the model. Using known algorithms, the model is finally solved thereby finding the set of estimated bin offered loads that both results in the ~~lexographic~~ lexicographic smallest vector of performance functions sorted in a non-increasing order and that satisfies the resource constraints.

Please replace the Abstract at page 22 with the following:

Non-uniform spatial loads are estimated for a plurality of bins corresponding to a cellular wireless territory served by Base Station Transceivers (BTS's). Using means and standard deviation of signal strength received at each of the bins from each of the BTS's, probabilities are computed for each bin such that each of the BTS's will serve the bin. Using the computed probabilities and an estimated offered load for each BTS, which load is derived from carried load and call lost measurements at the BTS, a resource constraint is then expressed for each BDS in terms of the bin offered load estimates. Next, using an approximation of relative demand for wireless services across all bins, based, for example, on demographic data, a performance function is expressed for each bin in terms of the bin's estimated offered load. Using the performance function a ~~lexographic~~ lexicographic minimax objective function is defined, which is then coupled with the resource constraints to express an equitable resource allocation model. Finally, the optimal solution to the model is determined thereby providing the bin offered load estimates.